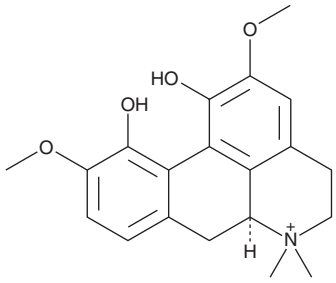
PRODUCT INFORMATION

Magnoflorine

Item No. 25122

CAS Registry No.:	2141-09-5
Formal Name:	5,6,6aS,7-tetrahydro-1,11-dihydroxy-2,10-dimethoxy-6,6-dimethyl-4H-dibenzo[de,g]quinolinium
Synonyms:	(+)-Magnoflorine, α-Magnoflorine
MF:	$C_{20}H_{24}NO_4$
FW:	342.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 231, 329 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Magnoflorine is supplied as a crystalline solid. A stock solution may be made by dissolving the magnoflorine in the solvent of choice, which should be purged with an inert gas. Magnoflorine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of magnoflorine in ethanol is approximately 50 mg/ml and approximately 100 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of magnoflorine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of magnoflorine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Magnoflorine is an alkaloid and a major constituent of *S. acutum* that has diverse biological activities.[1-4] It reduces hemolysis induced by lysophosphatidylcholine (LPC), but not NaCl, in a rat erythrocyte suspension when used at concentrations ranging from 0.01 to 10 µM.[1] Magnoflorine (10 µM) induces intracellular chloride influx in neuroblastoma cells, an effect that is reversed by the $GABA_A$ receptor antagonist bicuculline (Item No. 11727).[2] It reduces TNF-α-induced NF-κB expression as well as production of IL-6 and IL-8 in BEAS-2B cells.[3] *In vivo*, magnoflorine (20 mg/kg, i.p.) improves short- and long-term memory acquisition in a passive avoidance test in a mouse model of scopolamine-induced memory impairment.[4]

References

1. Sakumoto, H., Yokota, Y., Ishibashi, G., *et al. J. Nat. Med.* **69(3)**, 441-448 (2015).
2. de la Peña, J.B.I., Lee, H.L., Yoon, S.Y., *et al. J. Nat. Med.* **67(4)**, 814-821 (2013).
3. Sun, D., Zhou, M., Ying, X., *et al. BMC Complement. Altern. Med.* **14**, 356 (2014).
4. Kukula-Koch, W., Kruk-Słomka, M., Stępnik, K., *et al. Int. J. Mol. Sci.* **18(12)**, E2511 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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